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 BOOK REVIEWS

**A new edition of a standard manual\***

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When Rehder's *Manual of Cultivated Trees and Shrubs* appeared in 1927 it became almost at once a standard work essential to everyone working with woody plants in the United States. In the years since its publication new plants have been introduced, new varieties and hybrids have been developed, some changes in names have been necessitated by amendments to the International Rules of Botanical Nomenclature, and critical study of species has resulted in changes. All these are incorporated in the new edition, bringing the *Manual* up to date. Some 200 more species are added, with a corresponding increase in the number of varieties and hybrids. The map showing zones of hardiness, too small to be used conveniently, has been redrawn and printed in two colors as a full page plate. Seven instead of eight zones are recognized, but the reduction is practically to six zones as I, the treeless area of

\* *Manual of Cultivated Trees and Shrubs*. Second Edition, Alfred Rehder. xxx + 996 pages. The Macmillan Company. 1940. \$10.50.

northern Canada, and II, covering most of the rest of Canada, were both largely included in zone I of the first edition. Zone VII, the southernmost from which plants are considered, does not extend quite as far south as zone VIII of the first edition, as a result a few southern plants (including the only palm) given in the earlier edition are omitted. Plants that will not grow north of South Carolina or Louisiana in the east, or central California in the west are not included, otherwise all woody plants native or introduced to North America are given. It is interesting to note, as in the first edition, the number of varieties recognized for common native trees, as a random sampling—three varieties of the Quaking Aspen (*Populus tremuloides*), six of the Black Cherry (*Prunus serotina*), five of the Sugar Maple (*Acer saccharum*), four and three hybrids of the American Basswood (*Tilia americana*) and four of the Flowering Dogwood (*Cornus florida*). The term shrub is made to include such small forms as Spotted Wintergreen, Pipsissewa, Trailing Arbutus, Periwinkle and Linnaea. Moss Pink (*Phlox subulata*), given in the first edition, is omitted as is *Gilia pungens* for which *Gilia californica* is substituted.

Most of the work, as would be expected, is little changed; but the Bamboos have been entirely rewritten with ten instead of three genera—the result of recent study which has greatly divided Arundinaria as well as some of the other genera. The genus Rosa has been rewritten, with four instead of two subgenera and fewer sections, but the species little changed. Rhododendron has also been rewritten, eighty-five instead of sixty-one species being described. The treatment of species and genera is conservative—the Chokecherry is still *Prunus*; Cranberry, *Vaccinium*; and Box-Elder, *Acer*. But it is hard to reconcile with this conservative attitude the dividing of the genus Sequoia, the big tree becoming *Sequoiadendron giganteum*.

As in the early edition there are complete keys to families, genera and species. The list of publications with illustrations of described species has been enlarged and the list of authors has been increased to include all the names cited, about 1,150. A total of 2,550 species are described. The index, which includes all the varieties and synonyms, lists 14,300 names. This new edition at once goes on the "must have" list of all workers with cultivated woody plants.